Podium Pro Audio

Model PP1204CD

12” 2-Way Self-Powered Speaker

User’s Manual

Podium Pro Audio

Audio at its highest level

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INTRODUCTION

Podium Pro Audio self-powered loudspeakers are a high performance yet economical source of portable live sound reinforcement. Applications include speech, vocals, stage monitor and music playback. Used in accordance with the information provided this product will give years of trouble free use.

PP1204CD FEATURES

- USB/SD HOST – MP3 player with backlit LCD display
- Rugged, light weight ABS construction.
  - Built-in handle makes setup/teardown easy.
  - “Tip & Roll” built-in wheels for easy transport.
  - Rubber feet for added stability.
  - Feet drop into built-in stacking cups for secure stacking.
  - Perforated metal grill.
  - Built-in 1-½” (38mm) pole mount socket.
- 12” steel basket woofer.
  - High temperature woofer voice coil.
- Titanium diaphragm horn loaded tweeter.
- 600 Watt peak class D power amplifier.
  - Built-in MIC/LINE mixing capability.
  - Bass, Mid and Treble controls.
  - Line level and dynamic microphone inputs.
  - Buffered and balanced loop through allows linking any number of speakers.

BEFORE YOU BEGIN

- Read these instructions.
- *Follow* these instructions.
- Heed all warnings.
- Do not use where the speaker may get wet.
- Avoid placing the speaker in direct sunlight.
- Never place this speaker in close proximity to a heat source such as a radiator, stove or heater vent.
- Never defeat the polarizing or safety ground on the AC cord.
- Be certain all equipment is OFF before making or breaking connections.
- Always lower the volume control to minimum (full counter-clockwise) before turning speaker ON or OFF.
- Never attempt to connect a power amplifier’s speaker level output to the PP1204CD’s inputs.
- Clean only with a damp (not wet) cloth.
- Refer all service needs to qualified personnel. There are no user serviceable components inside.

TROUBLESHOOTING

Symptom	Likely Cause	What To Do
No sound.	AC power not connected or no AC power.	Verify the presence of AC power.
	Power switch off.	Turn speaker on.
	AC fuse blown.	Replace AC fuse (5A) If new fuse also blows speaker needs repair.
Speaker is ON but no sound.	No input signal.	Verify signal present at input connector(s).
	Input level set too low (full counter-clockwise).	Turn LINE LEVEL up (clockwise).
	Volume control set too low (full counter-clockwise).	Turn MASTER volume up (clockwise).
Microphone connected but no sound from microphone.	Microphone requires phantom power.	Change to a Dynamic Microphone or add a microphone preamp that provides phantom power.
	Defective microphone.	Repair or replace microphone.
	Defective microphone cable.	Repair or replace cable.
Sound is distorted even when volume is low.	The source level is too high, overloading the LINE IN.	Turn the LINE LEVEL down (counter-clockwise) and/or reduce source level. Raise the MASTER volume (clockwise) to restore desired loudness.
	AC line voltage too low.	Correct AC circuit fault.
	Source signal is distorted.	Correct source fault.
Excessive hiss in system.	Improper gain settings.	Lower MASTER volume. Then increase LINE LEVEL and/or MIC LEVEL to restore desired loudness.
Hum or buzz level rises and falls when volume level is raised or lowered.	Source has faulty safety ground.	Restore safety ground connection or repair source equipment.
	Faulty cabling between source and speaker.	Repair or replace cable.
Constant hum or buzz unaffected by volume setting.	Faulty safety ground connection.	Restore safety ground.
	Induced from AC cords.	Re-route AC power cables away from the audio interconnect cabling.
	“Ground loop” (circulating ground current).	Break (lift) the *audio* ground using an XLR/F to XLR/M adapter designed for this purpose. Connect between the source and speaker.
	Excessive length unbalanced cable from source.	Use balanced cables whenever possible. Use a Direct Injection Box (DI Box) to convert un-balanced sources to balanced.
	Improper gain structure.	*Increase* source and/or microphone output level and *decrease* speaker LINE IN and/or MIC INPUT level(s).

SIGNAL DISTRIBUTION

Podium Pro Audio speakers can accept either *balanced* or *unbalanced* line level sources and/or microphones.

- A balanced interconnect is a three conductor system. Two inner wires carry the audio signal differentially (opposite phase) and the third wire is for ground reference and shielding only.
- An unbalanced interconnect is a two wire system wherein the center conductor (aka “HOT”) carries the signal and the shield/ground conductor is *also* a signal conductor.

The PP1204CD will accept the three most common interconnects. XLR, ¼” PHONE and RCA. XLR are balanced. ¼” PHONE cables can be balanced or unbalanced. RCA cables are always unbalanced. Balanced interconnects provide superior noise immunity, especially for runs over 10 feet. It is recommended that you use balanced interconnects whenever possible.

LINKING MULTIPLE SPEAKERS

See **Figure 1** *for control and connection locations.*

To link (daisy-chain) multiple speakers, use an XLR interconnect from the LINE OUT ⑭ connector of the first speaker to the LINE IN⑬ connector of the second speaker. The PP1204CD employs a buffered, balanced LINE OUT circuit. Therefore, there is no practical limit to the number of speakers that can be linked!

Tip: To use this feature effectively it is necessary to understand exactly what LINE OUT is. It is the sum of MIC IN⑱, LINE IN⑲ and the Digital Music Player signals. This includes their relative levels as set by the MIC⑱, LINE⑲ and the Digital Music Player VOL controls.

Note that the MASTER㉑, TREBLE ㉔, MID㉓, and BASS㉒ controls *have no effect on* LINE OUT⑭. This allows you to optimize each speaker as necessary without altering the other linked speakers.

PP1204CD SPECIFICATIONS

System Description: Self powered, ported 12” two-way, weight: 45 lb. (20.4kg)
Frequency range (-10dB): 25Hz - 20kHz
Maximum acoustic output level: 106dB
System power rating: 300 Watts program material, 600 Watts peak
DIGITAL MUSIC PLAYER: Accepts USB 2.0 and SD memory devices up to 32GB.
File format: MP3, WMA
TREBLE control range: ±15dB @ 12kHz
MID control range: ±15dB @ 2.5kHz
BASS control range: ±15dB @ 80Hz
Power requirements: 120/240VAC, 50/60Hz, up to 5/2.5A
Enclosure: ABS plastic

WARNING

PROLONGED EXPOSURE TO HIGH SOUND LEVELS

Podium Pro Audio PP1204CD loudspeaker is capable of generating sound pressure levels (SPL) sufficient to cause permanent hearing damage to performers, production crew and audience members. Caution must be taken to avoid prolonged exposure to SPL levels in excess of 90dB. For example: Always place the speakers in such a manner that no audience members or personnel are continuously exposed to sound levels in excess of 90dB.

DIGITAL AUDIO PLAYER

Figure 1

⑧ **USB 2.0 Port** Insert any USB memory device up to 32GB directly into this port.

⑨ **SD Port** Insert any **SD** memory device up to 32GB directly into this port.

⑩ **LCD Display**

U/SD Indicates which memory device is connected. If both ports are occupied it indicates which one is currently playing.

TIME DISPLAY This counter indicates how long the current selection has been playing.

🔁 Indicates the current mode of play.

One Will play only the current selection continuously.

All Will play all music files found on the memory device continuously.

Rand Will play all music files found on the memory device continuously, in a random order.

EQ/VOL When setting the volume or selecting an EQ, your selection will be displayed here for two seconds.

⏵/⏸ NO. Indicates “play” or “pause” and the current selection number.

SONG NAME: Displays the filename of the current selection.

⑪ **Digital music player controls**

The player locates all MP3 and WMA music files on the memory device and plays them in alpha-numeric order. Music files in a folder will be played before files in the “root” of the device. Two or more folders will also be played in alpha-numeric order.

❍ ⏵/⏸ Press once to start play. Press again to pause play.

❍ ⏭ Press to skip to the beginning of the next file.

❍ ⏮ Press to skip back to the beginning of the previous file.

❍ **VOL+** Press to raise the Digital Music Player’s output.

❍ **VOL-** Press to lower the Digital Music Player’s output.

Tip: When mixing two or more sources (e.g. MIC IN⑱, LINE IN⑲ and the Digital Music Player) you will use VOL +/- in conjunction with the other source level control(s) to achieve the desired *relative* level of all sources. Start with the Digital Music Player’s output at maximum (25) and adjust the other source(s) to the desired mix, lowering the Digital Player’s output only if necessary. After the desired mix has been achieved, use the PP1204CD **MASTER**㉑ volume control to set the speaker’s loudness. This will result in the highest quality sound.

❍ **EQ** Press to step through 10 preset equalization curves. **Normal, Rock, Pop, Classic, Jazz, Blue, Hall, Bass, Soft, Country** and **Opera.**

❍ 🔁 Press to select the desired mode of play. **One, All** and **Rand**. See **LCD Display.**

❍ **U/SD** When both the USB and **SD** ports are occupied, press to select which source to play.

CONNECTIONS AND CONTROLS

⑰ **MASTER** Adjusts the loudness of this speaker. It has no effect on **LINE OUT**⑭.

⑲ **LINE** Adjusts **LINE IN**⑲ level independent of **MIC** ⑱, **MASTER**㉑, **TREBLE**㉔, **MID**㉓ and **BASS**㉒ controls.

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⑱ **MIC** Adjusts level of **MIC IN**⑱ independent of **LINE**⑲, **MASTER**㉑, **TREBLE**㉔, **MID**㉓ and **BASS**㉒ controls.

㉔ **TREBLE** Adjusts ±15dB at 12kHz. Has no effect on **LINE OUT**⑭.

㉓ **MID** Adjusts ±15dB at 2.5kHz. Has no effect on **LINE OUT**⑭.

㉒ **BASS** Adjusts ±15dB at 80Hz. Has no effect on **LINE OUT**⑭.

⑦ **CLIP** LED lights amber when the power amplifier is overdriven. Do not operate the speaker at a level that causes continuous illumination of this light.

⑭ **LINE OUT** Use this output to link multiple speakers to a single source. **LINE OUT** is the sum of **MIC IN**⑱, **LINE IN**⑲ and the Digital Music Player. It is a balanced output. **MASTER**㉑, **TREBLE**㉔, **MID**㉓, and **BASS**㉒ controls have *no* effect on **LINE OUT**.

⑲ **LINE IN** Accepts balanced or unbalanced XLR connection. It also accepts one (mono) or two (stereo) RCA phono connectors. Stereo signals are mixed to mono. Do not use both XLR and RCA inputs simultaneously.

⑱ **MIC IN** This input accepts balanced or unbalanced XLR or ¼” PHONE plug. Do not use the XLR and ¼” PHONE inputs simultaneously.

⑰ **PROT** When a fault condition exists, i.e. overheating, this red LED lights and the amplifier shuts-down. When the fault is corrected, protection is automatically reset and operation is restored.

⑯ **POWER** LED lights green when the speaker is connected to AC power and the power switch is in the ON position.

⑮ **AC INPUT** IEC power cord connector and AC fuse. The fuse and a spare are located under the cover directly above the AC plug.

⑭ **VOLTAGE SELECT**OR Switch selects either 120VAC or 240VAC operation. Never move this switch while the speaker is connected to an AC outlet.

⑬ ON/OFF switch.

INSTALLATION

Podium Pro Audio speakers are intended for portable applications where the speakers will be placed directly on the stage floor or mounted on a suitable speaker stand.

VERY IMPORTANT: This product is ***NOT*** intended for permanent installations. Such installations must follow rigorous standards, including cable or chain rigging for safety. No rigging points are provided and any attempt to modify the enclosure for this purpose will weaken the structure. Therefore, any overhead placement requiring rigging cannot be considered safe.

FLOOR PLACEMENT: Speakers must be placed in a secure, dry and level location. Be sure to cover or tape down any cabling that crosses a traffic lane. Two speakers can be safely stacked. The feet of the top speaker will engage cups designed into the top of the bottom speaker. Do not attempt to stack the PP1204CD more than two high. More than two speakers create a tipping hazard.

Try to place the speakers between the microphone(s) and the audience. This will minimize acoustic feedback.

STAGE “FOLDBACK” MONITOR: Place the PP1204CD on its side, along the front edge of the stage aimed toward the performers. Exact placement is strongly influenced by type and placement of the microphone(s).

STAND MOUNTING: Podium Pro Audio speakers are compatible with standard 1-½” (38mm) stands.

Tip: Sound quality and coverage area are best when the tweeter is between 2 to 4 feet above the audience ear level.

- Speaker stands must only be used on smooth level surfaces.
- Be certain you select a stand rated for *at least 50lb.* Contact your dealer for recommendations.
- **NEVER MOUNT MORE THAN ONE SPEAKER ON A STAND.**
- Do not attempt to mount the speaker on a stand without an assistant.
  1. Mount the speaker on its stand *prior* to making any electrical connections.
  2. Turn the setscrew in the speaker base counter-clockwise until it does not block the insertion of the stand post.
  3. After placement, verify that the stand post is fully seated in the speaker base.
  4. Tighten the setscrew (by hand) to lock the speaker in place. Failure to do so may result in injury or equipment damage.
- Route and secure all cabling such that there are no tripping hazards. Use gaffer’s tape or other retaining system liberally.
- Any cabling that crosses a traffic lane *must* be covered or taped down.
- Add weight (i.e. sandbags) to the base of the stand for added stability. In a windy outdoor location, this is vitally important!

AC POWER DISTRIBUTION

It is very important to provide adequate AC power to each speaker in the system. Performance of the PP1204CD may be degraded if the AC voltage drops more than five volts. The length of the run and the number of speakers connected dictate the appropriate gauge AC cord (extension cord) to use. Use the following table to establish the correct gauge AC cord to use.

CAUTION *Never* connect more than three PP1204CD speakers to a single AC cord run. If more than three speakers are used add additional AC cords *in parallel* as needed.

Cord Gauge	ONE PP1204CD	TWO PP1204CD	THREE PP1204CD
16	up to 100’	up to 60’	up to 30’
14	up to 175’	up to 100’	up to 60’
12	up to 300’	up to 150’	up to 100’